

Most of the firms insisted, and probably rightly, that they must temper their quality efforts to meet the price structure set by less careful competitors. It was agreed that standards for grading fish would be desirable, but probably not possible for quite a while. Instead, the Fresh Fish Committee asked for a self improvement program, based on a code of proper practices. The members believed this could be a preparatory step for the adoption of grade standards. The Committee proposed that a fresh fish quality improvement project be financed by the Fish and Wildlife Service with "Saltonstall-Kennedy Act" funds. Recently, the Service announced that an allotment for such a project had been approved; work should start soon.

In summary it can be concluded that the bulk of the industry does not fear the thought of standards, even official standards, if they are voluntary. The industry recognizes the drastic need for improvements in quality and in marketing practices, and is willing to give an official voluntary grading system a cautious trial.

---

## **Voluntary Standards For Fishery Products — an Industry - Government Cooperative Job**

R. T. WHITELEATHER

*Assistant Chief  
Branch of Commercial Fisheries  
Fish and Wildlife Service  
Washington, D. C.*

AT THE SEVENTH ANNUAL MEETING of the Gulf and Caribbean Fisheries Institute, the general theory of standards was discussed. A hypothetical case was described showing how a voluntary federal standard of grade and condition would be applied to fishery products. The new and popular fish sticks were used as an example.

Further steps have been taken to advance voluntary federal standards, and success now depends on the practical use of standards. A draft of a voluntary standard for frozen fried fish sticks has been developed, the industry working closely with the Service on this. A preliminary draft of a breaded shrimp standard is being developed for industry comment. Thus, Government and industry have experienced together the somewhat complex but very educational processes any group encounters in the launching of the standards "ship" into relatively unchartered seas.

It may be thought that the field of voluntary federal standards has already been thoroughly explored—for example, by those in the poultry or processed fruits and vegetable field—and their principles applied to the fishing industry. Since fish are more perishable, greater safeguards for quality and therefore stricter standards are necessary. In order to retain their quality, fish are handled differently, stored differently, and marketed differently than poultry or vegetables. Our new work in the development of standards supplies ample proof of that statement.

A brief review of our experiences in this new area of industry-Govern-

ment effort may illustrate that even though the fishing industry is one of America's oldest, it is at the same time never too old to adopt new ideas.

Our first joint experience in the development of voluntary standards for fishery products began in April, 1954. This occasion was the effective date for a cooperative study financed by the Maine Sardine industry to find ways and means for quality improvement in canned Maine sardines. Within a twelve month period it became possible by working in cooperation with the sardine industry quality control committee and interested plant operators to develop guide lines and evaluation factors acceptable as the basis for a state inspection and certification system. In 1955, the State of Maine, by passage of appropriate legislation, has implemented the program on a voluntary or educational basis to demonstrate that improvement in quality will be profitable to the industry. The sardine industry in Maine has set up a quality control laboratory and spares no effort to see that the consumer finds uniformity in quality for grade of product purchased. The valuable lessons from this first venture into the voluntary standards field have been applied in our subsequent work.

It may be that other competing protein products are experiencing the same kind of "growing pains," as for example innovations such as ham sticks, turkey sticks, or breaded pork chops, which are available on the retail market. Fortunately, the fish industry has already certain advantages over these products. The industry knows how to freeze, package and store the basic fishery products, and the so-called specialty products such as the popular pre-cooked breaded fishery items. What the fish industry now lacks is the valuable tool for maintaining a continuous market, that is, standards, which many of these competing products already enjoy by virtue of their membership in the large family of agriculture products.

In 1955, the Government tried to focus the industry's attention first to the assistance that standards can be to every segment of the fishing industry, and secondly on the importance of the active participation of interested persons to make the standard, when drafted for public comment, a realistic and practical measure of the product for marketing. The paramount importance of industry participation and comment in the detailed review of the first working draft, and then the provisional draft of such a voluntary standard cannot be over-emphasized. Government research agencies cannot complete a helpful standard without the full and continued support of the fishing industry in these respects. In fact, it would be impossible to launch into a standard program without the active interest and substantial approval of that part of the industry concerned with the particular product.

The standards have to be practical from the economic standpoint if they are to be usable. Compliance with standards generally requires some plant alterations, which cost money. Standards are of no advantage unless they pay back a real dividend in greater sales volume, a better price or a more satisfied customer. A fair and neutral opinion on the quality, for example, of a lot of breaded shrimp offered for sale to a chain store buyer by a broker can result in buyer's resistance if quality alleged is not borne out by the grading to the standards specifications. The effect does not stop there. The broker can then request a grade certificate for the next lot of this product he orders from the packer. The control then is transmitted from the distribution chain back to the packer. The packer profits by the reaction thus set in motion by insisting on known quality in the raw materials he purchases from the fishermen, the

breader, the cooking oil manufacturer, and the supplier of packing materials. This is the reason for early review of a proposed standard by all of these people at the operating level.

Government and industry are anxious to further the acceptability and hence the volume of trade in fish and fishery products. For years it was debated as to what was the best way to accomplish this obviously desirable goal. A number of courses of action have been tried, including mass advertising, tie-in sales, group demonstrations, national and local fish weeks, and other recognized merchandising techniques. The per capita consumption figure of approximately 11 pounds of fish and shellfish per year in the United States could well be increased. Perhaps adequate attention has not been given to an additional tool that the industry's competitors in the agriculture field have been using for about thirty years, namely, an impartial evaluation of rank and uniformity of quality in the product offered in the market place.

The Service has stepped into this field of development of voluntary standards at industry request. It is giving this work its best effort in relation to the personnel and facilities available. The maximum effectiveness of these efforts can only be achieved through industry's interest and vigorous support. This way all concerned can reap the maximum return for the dollars and the thought thus far expended in the first year of this undertaking. The second year's progress will be largely a matter of industry's participation.

The Service acknowledges with thanks the capable assistance of those who helped to bring the draft of the fish stick standards to its current stage and in development of background material needed for preliminary stages of the breaded shrimp standard. This program can be extended to other fishery products as industry interest warrants, and it is the Government's sincere hope that every step will be a long one forward.

---

## **Sanitary Standards For Crab Plants**

GEORGE W. GEHRES

*Florida State Board of Health  
Jacksonville, Florida*

EACH YEAR the popularity of crab meat as a seafood delicacy increases. With this increase in popularity comes an increase in production. Today the production of fresh crab meat has become a year-round industry in Florida. Unfortunately, crab meat has been implicated in food-borne outbreaks. It has been recognized by health authorities that the regulations used in sanitary control of the industry are out-dated and do not offer the public adequate protection against potentially dangerous foods.

Crab meat is an excellent example of a food stuff over which a constant supervision must be maintained. The meat of the blue crab that is sold as fresh crab meat consists primarily of muscle tissue. The crabs are cooked live and the meat is picked from the bodies and claws. The picked meat constitutes the muscle tissue and is primarily protein. However, once this protein has been heat treated it breaks down sufficiently to make it a good bacterial growth medium. Cooking breaks the glycogen in the muscle tissue down into simple